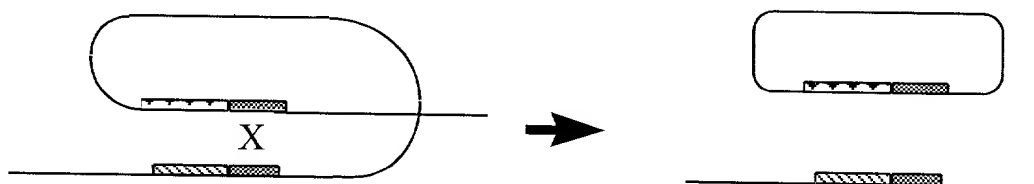


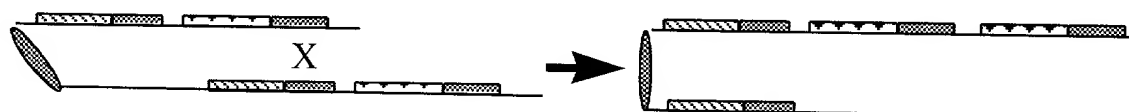
Figure 1. Three pathways for obtaining “deletion derivatives”



A. Loop-out



B. Unequal sister chromatid crossover



C. Unequal interhomologue crossover

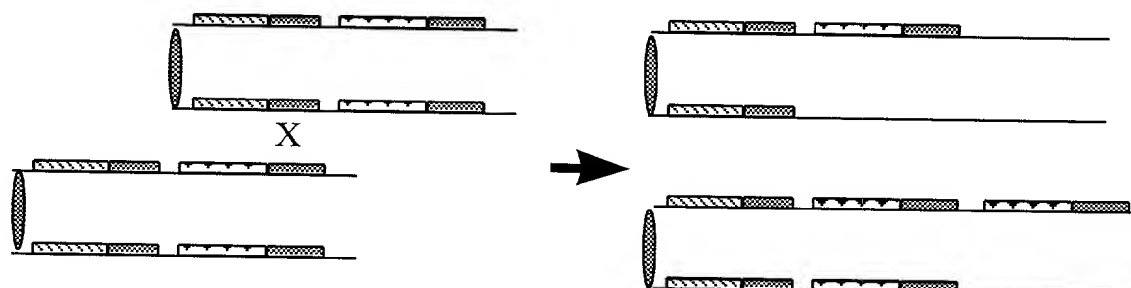


Figure 2. Gene conversion pathway (nonreciprocal recombination) for obtaining “deletion derivatives”

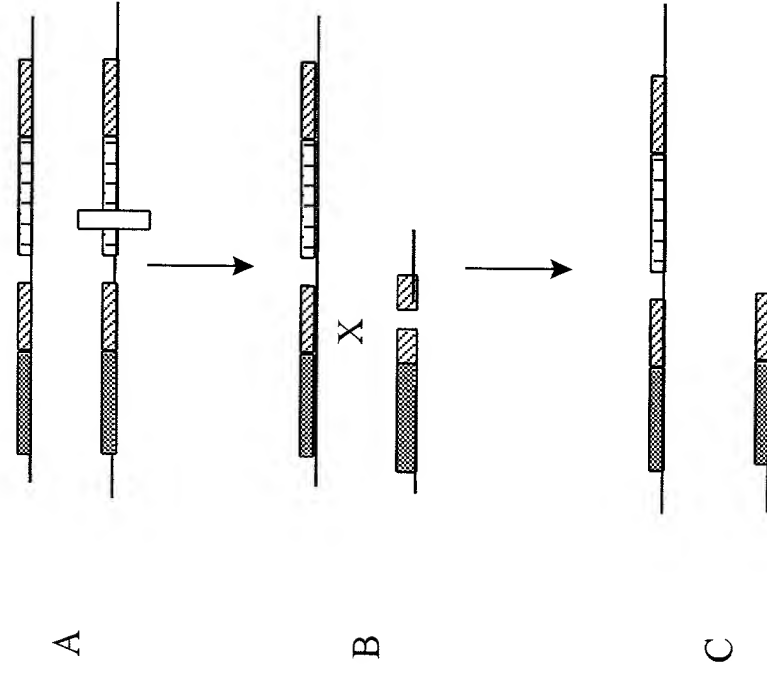
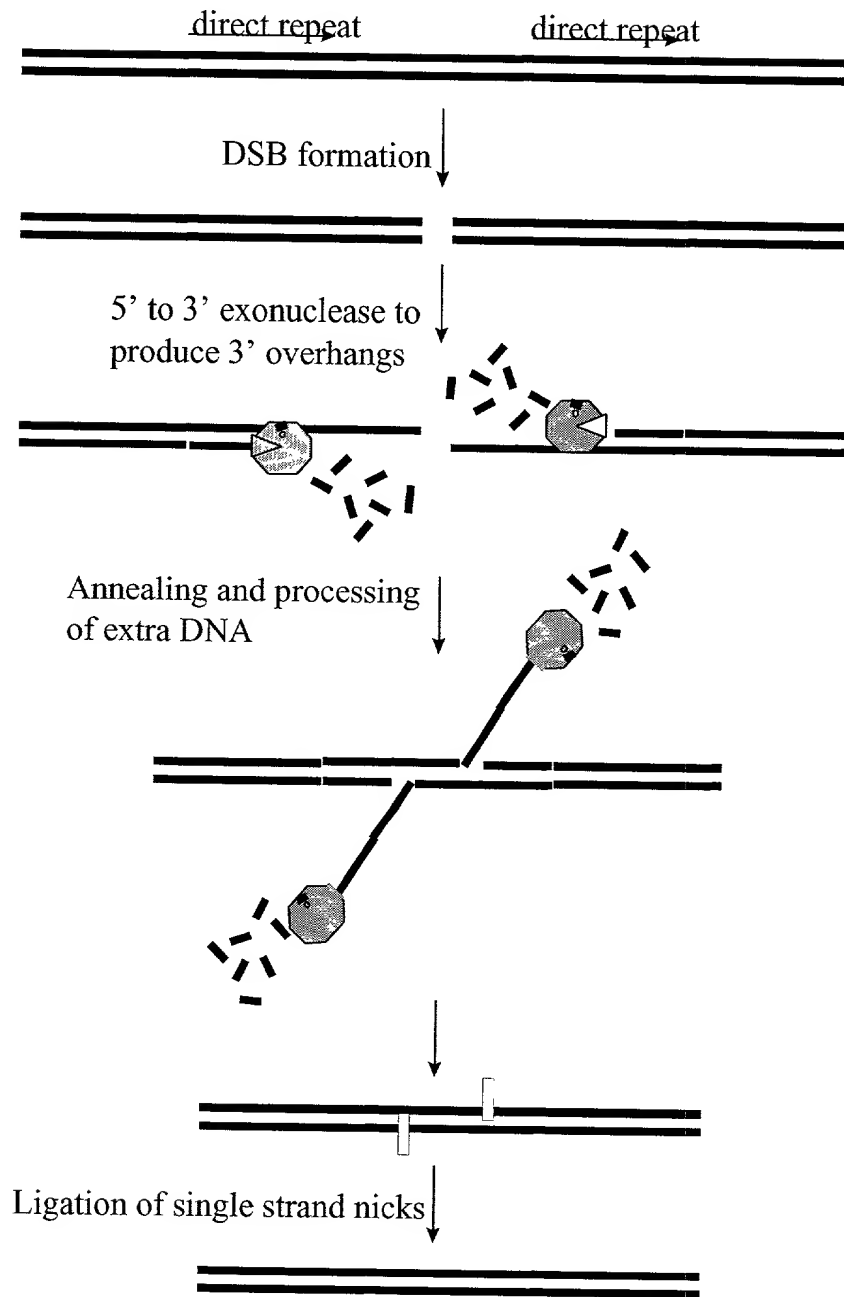


Figure 3. Single strand annealing model



09501364.030201

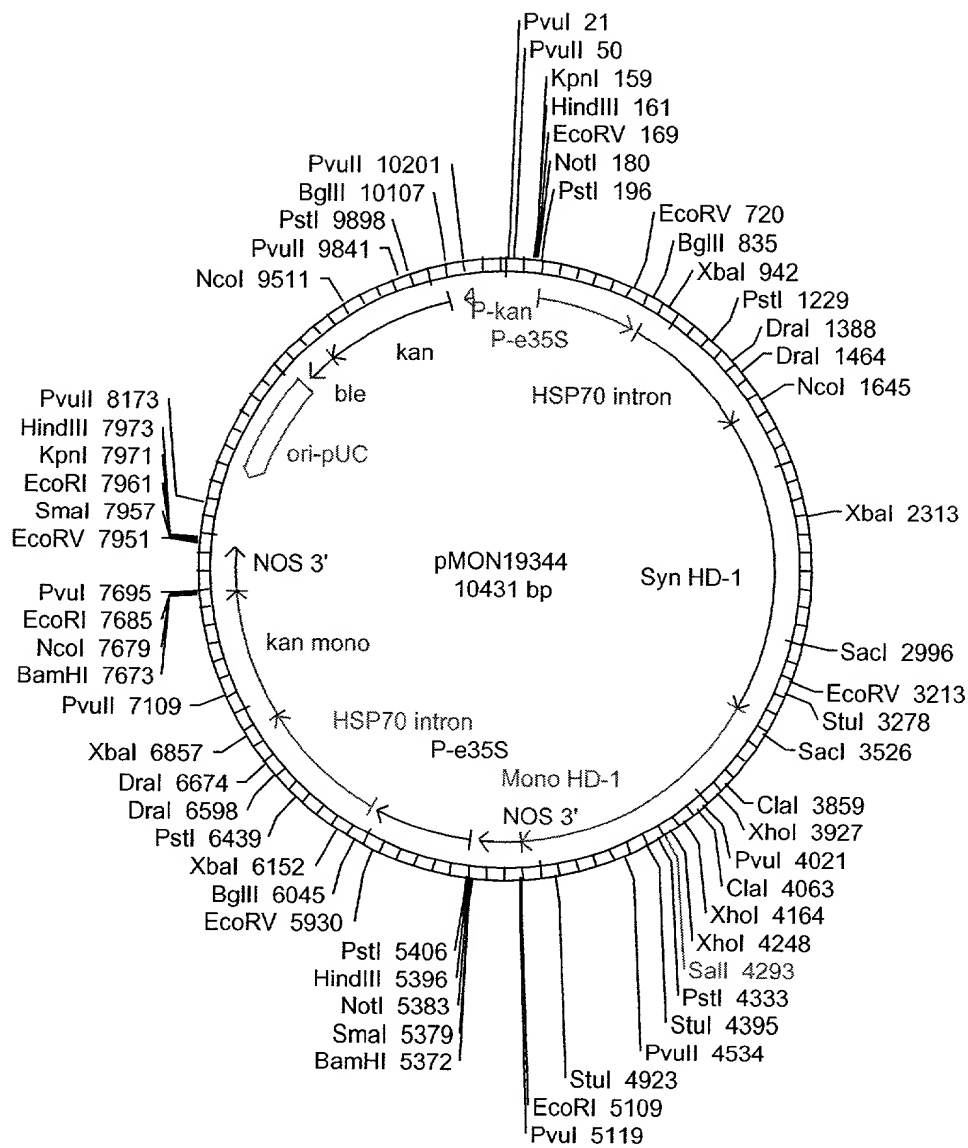
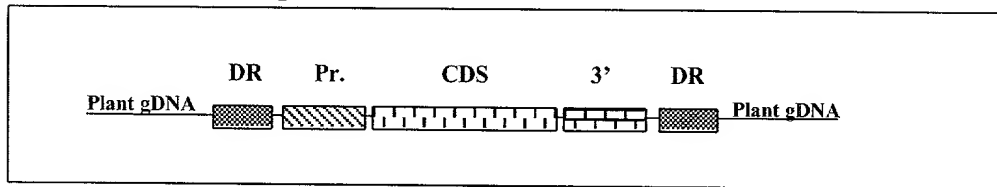


Figure 4.

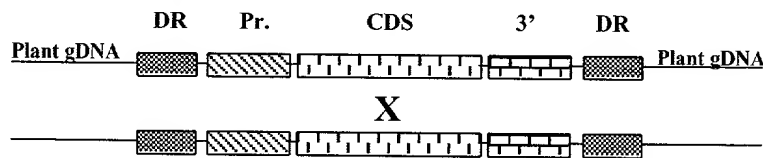
Direct Repeat Induced, Non-Reciprocal Recombination-Mediated Transgene Deletion

I. Hemizygous R₁ Transgenic Plant

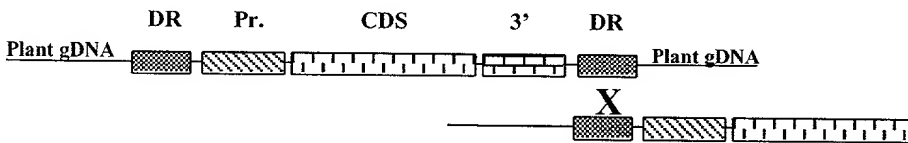


II. Homozygous S₁ Transgenic Plant at Meiosis

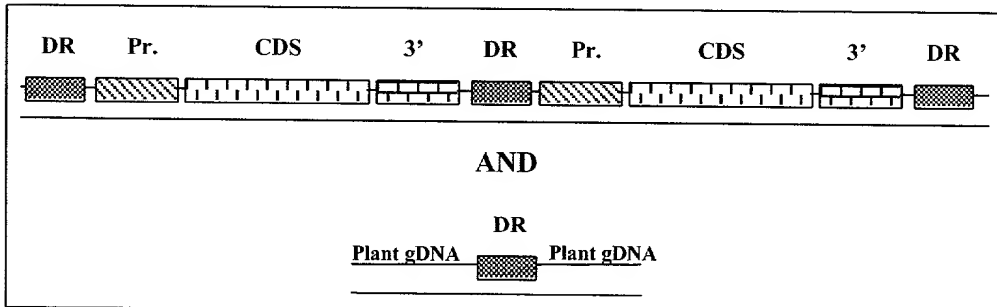
A. Reciprocal Recombination



B. Non-Reciprocal Recombination



III. F₁ Recombinant Progeny Plants



In the graphic illustration:

Plant gDNA	=	plant genomic DNA flanking the site of transgene integration
DR	=	Direct Repeat
Pr.	=	"Promoter"
CDS	=	coding sequence
3'	=	transcription terminator

Figure 5.

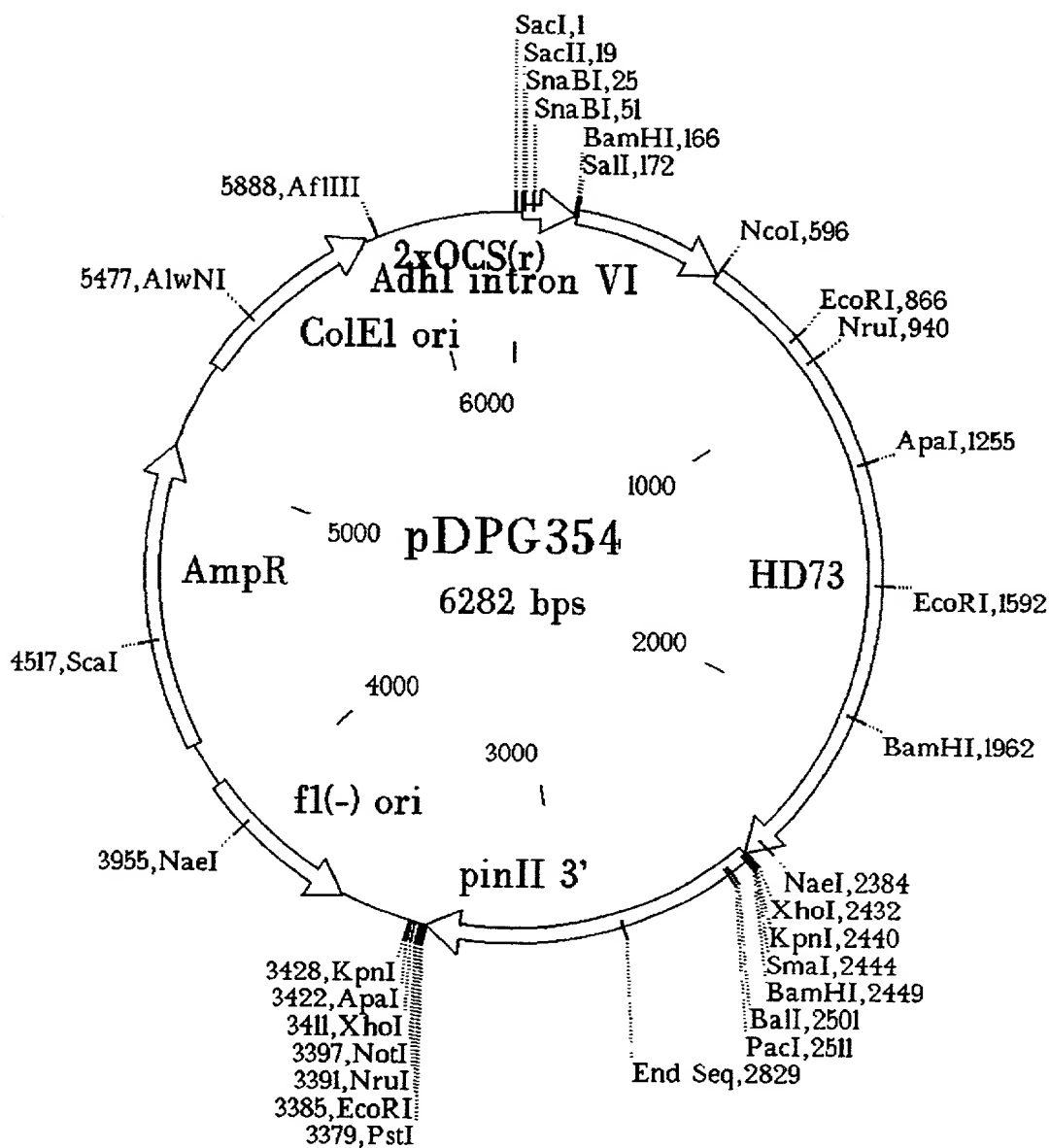


Figure 6.

Figure 7.

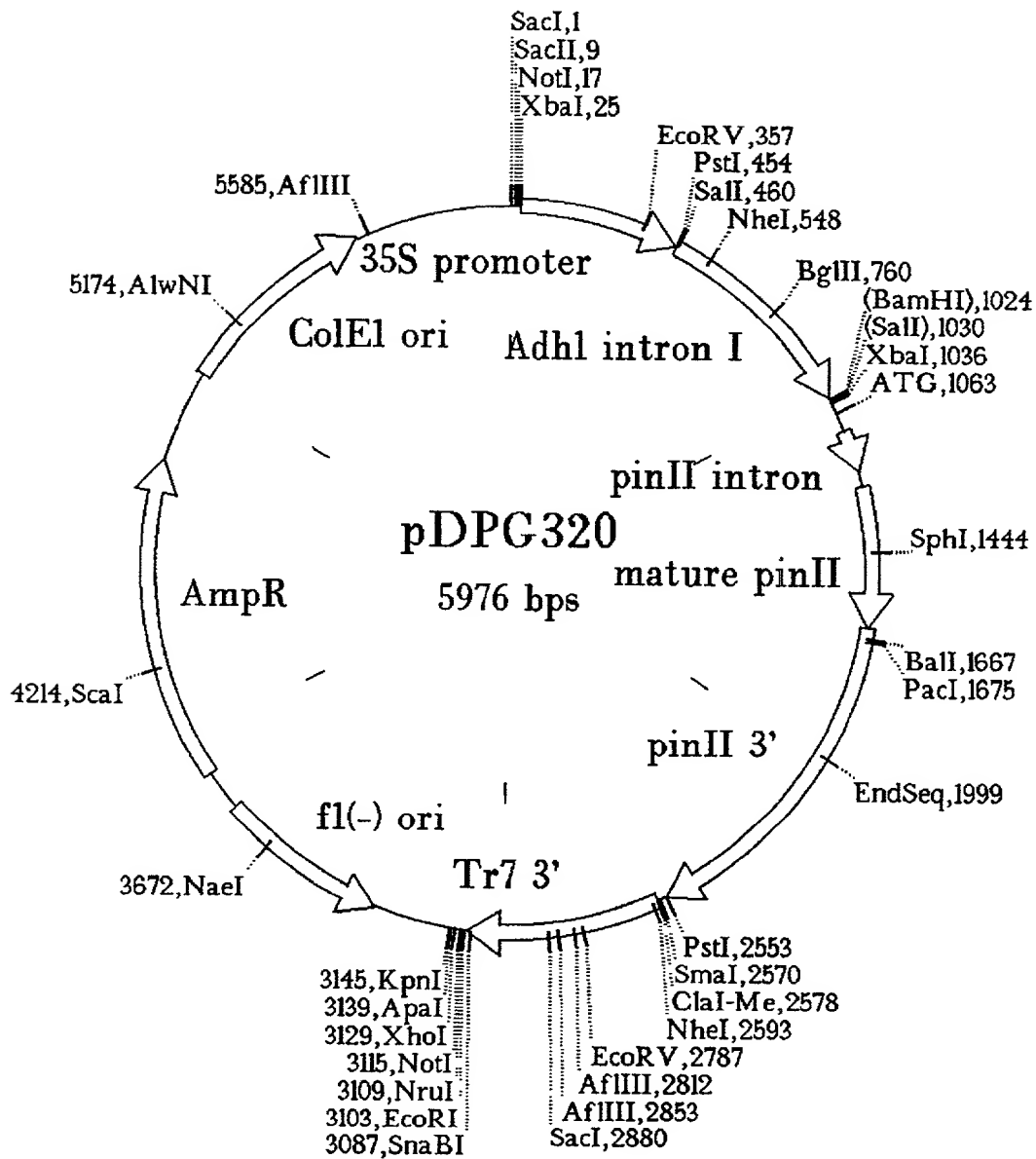


Figure 8.

DBT418 Transgene Insertion

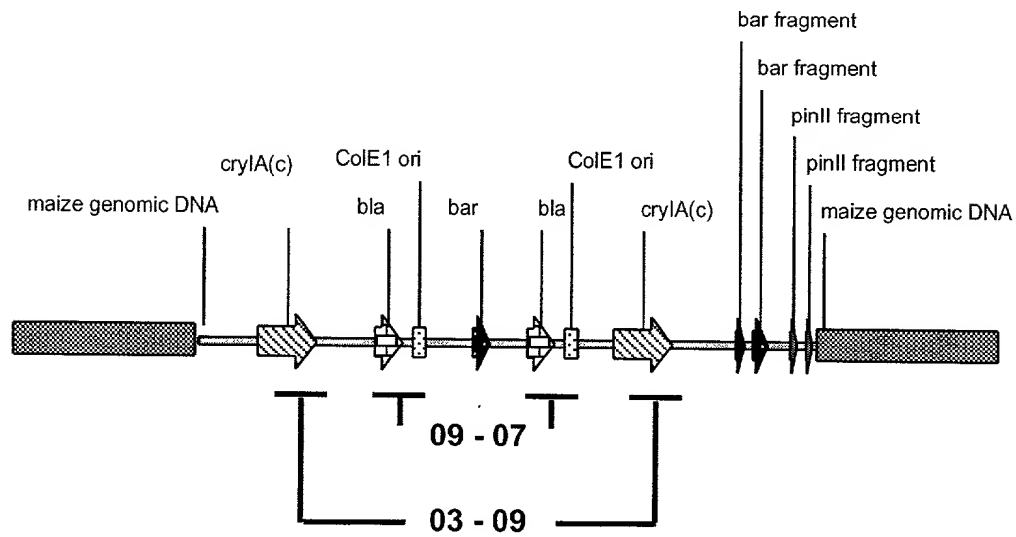
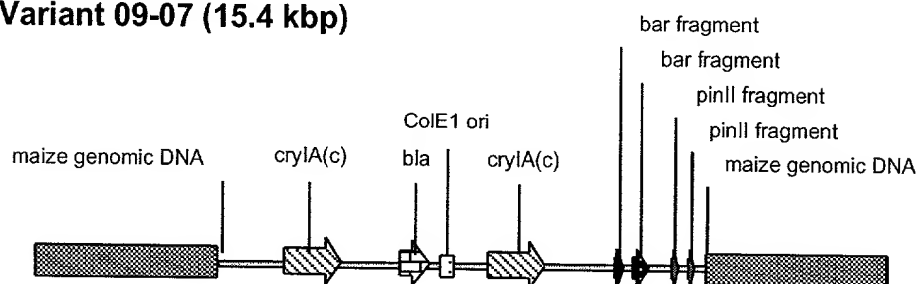


Figure 9.

DBT418 Altered Transgene Insertions

Variant 09-07 (15.4 kbp)



Variant 03-09 (9.2 kbp)

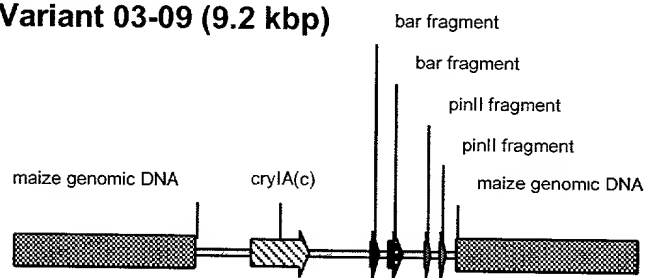
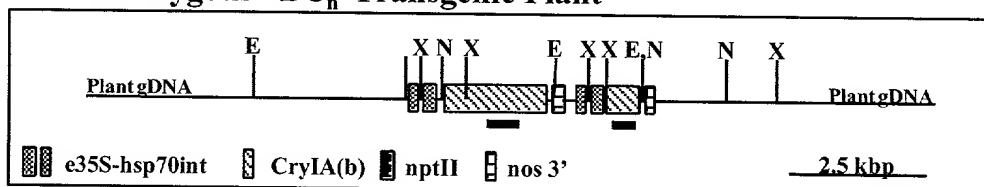


Figure 10.

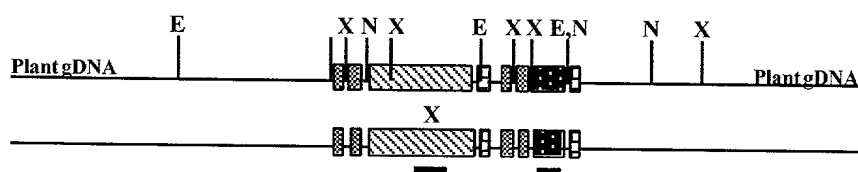
Non-Reciprocal Recombination-Mediated Transgene Deletion in MON849

I. Hemizygous BC_n Transgenic Plant



II. Homozygous S₁ Transgenic Plant at Meiosis

A. Reciprocal Recombination



B. Non-Reciprocal Recombination

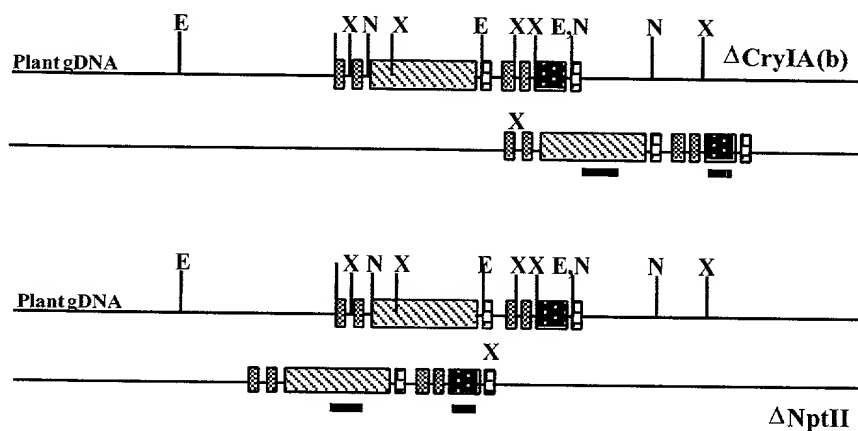
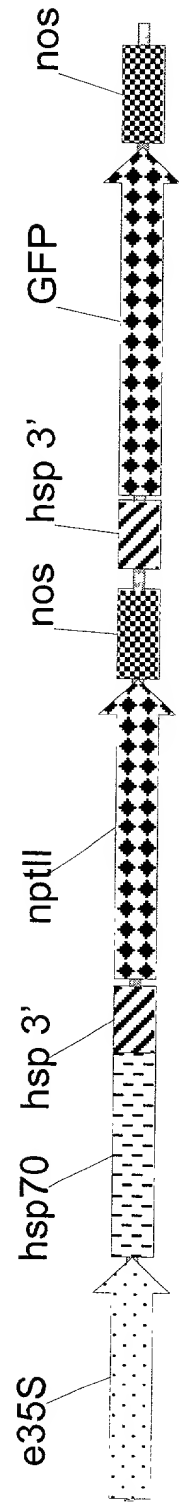
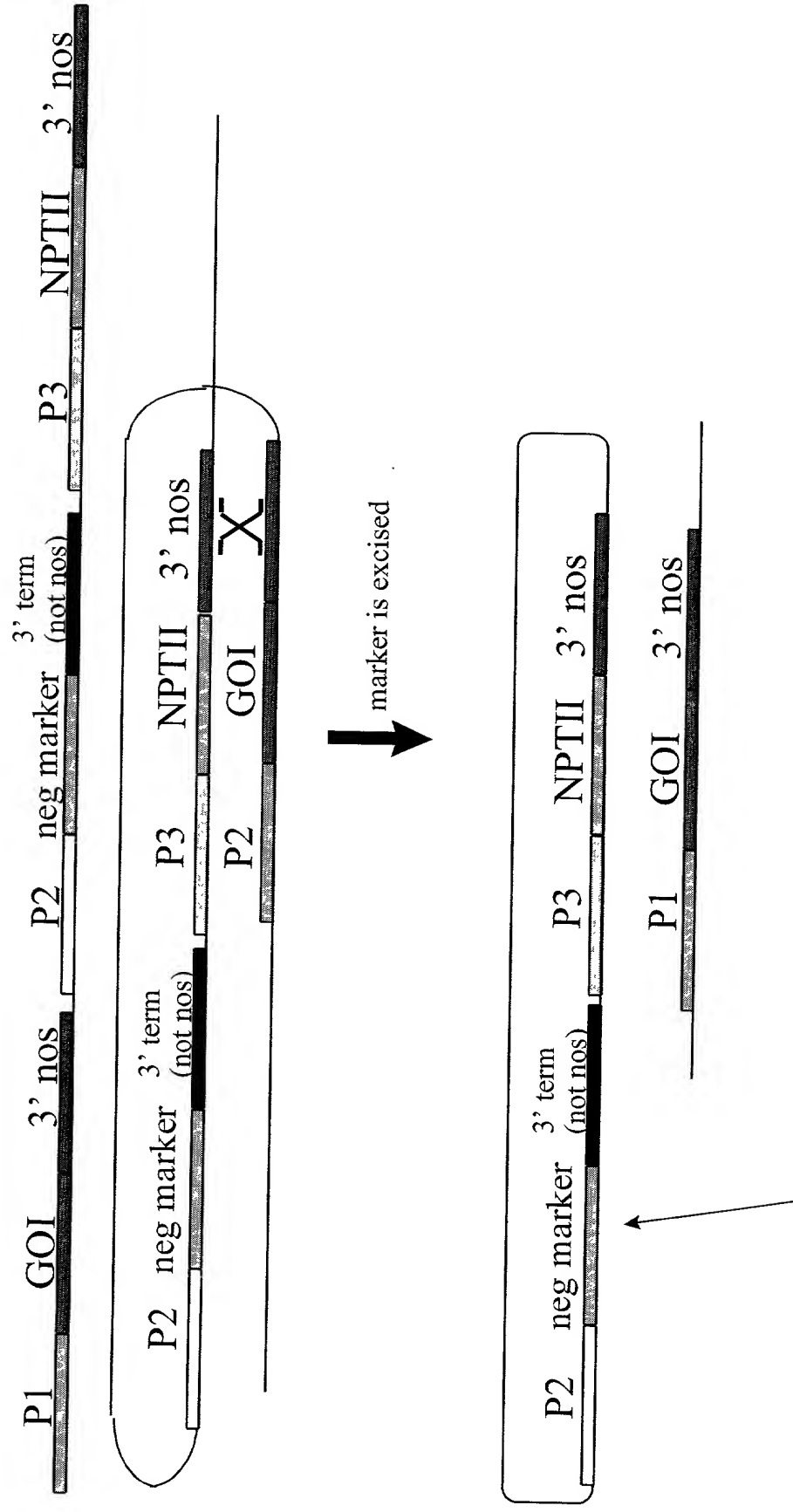


Figure 11.



pMON36133

Figure 12.



select for loss of negative selectable marker

Figure 13